

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1 - 24. (Canceled)

25. (Currently amended) A memory for a signal processor, comprising:

a data structure, responsive to a control input representing a selection of a portion of an image stored in said memory, wherein said selection is chosen across a field of view, said data structure representing an orthogonal set of transformation algorithms; and

a buffer memory adapted to store digital image data for transformation;

wherein said data structure transforms data according to the following equations:

$$X = \frac{R[uA - vB + mR\sin\beta\sin\partial]}{\sqrt{(u^2 + v^2 + m^2R^2)}}$$

$$Y = \frac{R[uC - vD - mR\sin\beta\cos\partial]}{\sqrt{(u^2 + v^2 + m^2R^2)}}$$

where:

$$A = (\cos\theta\cos\partial - \sin\theta\sin\partial\cos\beta)$$

$$B = (\sin\theta\cos\partial + \cos\theta\sin\partial\cos\beta)$$

$$C = (\cos\theta\sin\partial + \sin\theta\cos\partial\cos\beta)$$

$$D = (\sin\theta\sin\partial - \cos\theta\cos\partial\cos\beta)$$

and where:

R = radius of the image circle

β = zenith angle

∂ = Azimuth angle in image plane

θ = object plane rotation angle

m = Magnification

u,v = object plane coordinates

x,y = image plane coordinates.

26 - 79. (Cancelled)